

## AMENDMENTS TO THE SPECIFICATION

Please amend the title at the top of page 1 and page 16 as follows:

~~FULLY INTEGRATED~~ METHOD OF FORMING A PRINthead  
USING A SILICON ON INSULATOR SUBSTRATE ~~WAFER~~

Please amend the abstract on page 16, lines 6-17, as indicated on the following page.

Described herein is a method of forming a printhead. A silicon-on-insulator (SOI) substrate, including a first silicon layer, a second silicon layer, and an oxide layer between the first silicon layer and the second silicon layer, is provided. A plurality of thin film layers is formed on a first surface of the substrate. At least one of the layers forms a plurality of ink ejection elements. Ink feed holes are formed through the thin film layers. An opening is formed in the substrate by (a) etching the first silicon layer of the SOI substrate using a wet etch to etch a trench in the first silicon layer extending to the oxide layer; (b) etching an opening in the oxide layer; and (c) etching an opening in the second silicon layer to form an ink path between a backside of the SOI substrate and a topside of the SOI substrate.

~~monolithic printhead formed using integrated circuit techniques. Thin film layers, including ink ejection elements, are formed on a top surface of a silicon substrate. The various layers are etched to provide conductive leads to the ink ejection elements. A trench is etched in the bottom surface of the substrate, leaving a thin silicon shelf or membrane. Ink feed holes (individual holes or a second trench) are formed in the silicon shelf or membrane, and ink feed holes are formed in the thin film layers, so that ink can flow into the trench and into each ink ejection chamber through the ink feed holes. The ink ejection elements reside over the silicon shelf or membrane so that the shelf or membrane provides mechanical stability, prevents thin film layer buckling, and improves the heat transfer between the ink ejection elements and the substrate. In one embodiment, the substrate is a silicon on insulator (SOI) substrate. An orifice layer is formed on the top surface of the thin film layers to define the nozzles and ink ejection chambers.~~